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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/354,464	07/15/1999	HIROMI WATANABE	530172000100	5197

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EXAMINER

HON, SOW FUN

ART UNIT

PAPER NUMBER

1772

18

DATE MAILED: 09/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-18

**Office Action Summary**

Application N .

09/354,464

Applicant(s)

WATANABE ET AL.

Examiner

Sow-Fun Hon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 24-99, 145 and 146 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☒ Claim(s) 27-29, 33, 37, 42, 48-50, 54, 58, 60-65, 69, 72, 76, 79, 84, 87, 93 and 96 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Continuation of Disposition of Claims: Claims rejected are 24-26,30-32,34-36,38-41,43-47,51-53,55-57,59,66-68,70,71,73-75,77,78,80-83,85,86,88-92,94,95,97-99,145 and 146.

## **DETAILED ACTION**

### ***Continued Prosecution Application***

1. The request filed on 05/30/03 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/354,464 is acceptable and a CPA has been established. An action on the CPA follows.

### ***Allowable Subject Matter***

2. Claims 60-65, 72, 79, 87, 96 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
3. The following is a statement of reasons for the indication of allowable subject matter: the closest cited prior art of record US 5,490,631 fails to teach that the low melting point second thermoplastic film is further laminated on the upper surface of the higher melting point thermoplastic film which is unexpanded even by heat treatment.
4. Claims 27-29, 33, 37, 42, 48-50, 54, 58, 69, 76, 84, 93 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter: the closest cited prior art of record US 5,490,631 fails to teach that the outer surface of the compatibly expansile ink is printed with indicia using separately prepared compatibly expansile ink.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 24-26, 30-32, 45-47, 51-53, 55-57, 59, 81-83, 85-86, 90-92, 94-95, 97-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iioka et al. (US 5,490,631) in view of Kallender et al. (US 3,049,463).

Iioka et al. has a heat-insulating paper container, comprising a container body and a bottom wall, which has a thick expanded (foamed) heat-insulating layer in the area of the outer surface of the body member and is provided with printing of an organic solvent based ink. The paper base (sheet) used in producing the heat-insulated container has preferably a basis weight in the range from 100 g/m<sup>2</sup> to 400 g/m<sup>2</sup> with a water content within the range for about 3 % to about 10 % (column 6, lines 30-40). The process by which the base paper is made is not given any further consideration. Even though product by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (*Fed. Cir. 1985*). In the instant case, whether the base paper is a product obtained by a method using a fourline paper machine, cylinder paper machine, or other means is immaterial if the product is the same.

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Iioka et al. teaches that the second thermoplastic synthetic resin film laminated on an outer wall surface of said base paper of said container body (film on the outer surface) must be a low-density polyethylene (LDPE) and the first thermoplastic synthetic resin film laminated on an inner wall surface of said base paper of said container body (film on the inner surface) must be a medium or high density polyethylene (MDPE, HDPE) (column 6, lines 13-16).

Iioka et al. teaches that the ink to be used in printing is of such a type that very small amounts of solvent components remain in the printed surface to accelerate film expansion (foaming) via heat treatment (in an oven). Since the residual ink solvents contribute to enhanced expansion (foaming) of the film (column 4, lines 15-30) and are a component of the ink, in the absence of a showing to the contrary, the examiner has taken the position that the applied ink would expand commensurately with the expansion (foaming) of the film.

Although Iioka et al., teaches ink between the base paper and the foamable resin layer, it fails to teach application of the ink as print to the top of the expandable film or the color of the ink.

Kallander et al. is directed to decorated expanded (foamed) plastic wherein the ink is applied to (contacted with) the expandable (foamable) surface (column 1, lines 1-20). Titanium dioxide, a white pigment notoriously well known in the art, is used in one example (column 3, lines 40-55). Kallander et al. merely demonstrates that it would have been obvious to one of ordinary skill in the art to have also printed the ink on top of the expanded (foam) insulated area as a variation of the design of Iioka et al. since decorative printing on top of the foam is well known in the art.

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Both Kallender et al. and Ilioka et al. are directed to decorated (printed) foamed plastic, and are thus analogous art.

8. Claims 34-36, 38-41, 43-44, 66-68, 70-71, 73-75, 77-78, 80, 88-89, 145-146 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ilioka et al. in view of Kallender et al. as applied to claims 24-26, 30-31, 45-47, 51-53, 55-57, 59, 81-83, 85-86, 90-92, 94-99 above, as evidenced by Herman et al.

Ilioka et al. has been discussed above and teaches the insulating beverage container comprising a container body and a bottom wall, a first medium or high density polyethylene resin film laminated on an inner wall surface of a base paper of said container body and said bottom wall, and a second low-density polyethylene resin film laminated on an outer wall surface of said base paper of said container body. The thickness of the low density polyethylene is 0.03 to 0.06 mm (25 to 60 microns) (column 6, lines 5-25).

The claimed melting points and melt indices are inherent properties of the high density polyethylene (HDPE) and low density polyethylene (LDPE) as evidenced by Herman et al.

Herman et al. discloses that the melting temperature of LDPE is in the range of 102 to 112 °C which overlaps the claimed range of 105 to 110°C, and that the melting temperature of MDPE is 110 to 120°C. Since the melting temperature of MDPE is 5 to 10°C higher than LDPE, and HDPE has a higher melting temperature than MDPE which is higher than that of LDPE, it is the examiner's position that the melting temperature of HDPE overlaps the claimed range of 130°C to 135°C which is 10 to 15°C higher than LDPE. The LDPE and the MDPE/HDPE would have the corresponding claimed melt flow rates (MFR). The melt flow rate corresponds to the melt index of the resin which is from 0.2 to 25 (Table 7 and appendix, page 413).


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Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (703)308-3265. The examiner can normally be reached Monday to Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (703)308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

817  
Sow-Fun Hon  
08/27/03

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772 8/28/03